

Title (en)
METHOD FOR PRODUCING ELECTROCATALYST POWDERS

Title (de)
VERFAHREN ZUR HERSTELLUNG ELEKTROKATALYTISCHER PULVER

Title (fr)
PROCEDES DE PREPARATION DE POUDRES ELECTROCATALYTIQUES

Publication
EP 1268054 B1 20121205 (EN)

Application
EP 01920697 A 20010322

Priority

- US 0109367 W 20010322
- US 53291700 A 20000322
- US 58971000 A 20000608

Abstract (en)
[origin: WO0170392A1] Electrocatalyst powders and methods for producing electrocatalyst powders, such as carbon composite electrocatalyst powders. The powders have a well-controlled microstructure and morphology. The method includes forming the particles from an aerosol of precursors by heating the aerosol to a relatively low temperature, such as not greater than about 400 DEG C.

IPC 8 full level
B01J 21/18 (2006.01); **B01J 35/04** (2006.01); **B01J 2/02** (2006.01); **B01J 13/02** (2006.01); **B01J 19/00** (2006.01); **B01J 19/10** (2006.01); **B01J 19/24** (2006.01); **B01J 23/34** (2006.01); **B01J 23/40** (2006.01); **B01J 35/02** (2006.01); **B01J 35/10** (2006.01); **B01J 37/00** (2006.01); **B22F 1/054** (2022.01); **B22F 9/02** (2006.01); **B22F 9/24** (2006.01); **C01B 13/18** (2006.01); **C01B 17/20** (2006.01); **C01D 1/00** (2006.01); **C01D 15/02** (2006.01); **C01G 23/00** (2006.01); **C22C 29/00** (2006.01); **C22C 32/00** (2006.01); **H01L 23/498** (2006.01); **H01M 4/36** (2006.01); **H01M 4/86** (2006.01); **H01M 4/88** (2006.01); **H01M 4/90** (2006.01); **H01M 4/92** (2006.01); **H01M 4/96** (2006.01); **H01M 8/00** (2006.01); **H01M 8/10** (2006.01); **H01M 8/18** (2006.01); **H01M 12/06** (2006.01); **H01M 12/08** (2006.01); **B01J 23/00** (2006.01); **B01J 31/06** (2006.01); **B01J 35/08** (2006.01); **B01J 37/34** (2006.01); **H05K 1/09** (2006.01)

CPC (source: EP KR US)
B01J 2/02 (2013.01 - EP US); **B01J 13/02** (2013.01 - EP US); **B01J 19/10** (2013.01 - EP US); **B01J 19/2405** (2013.01 - EP US); **B01J 21/18** (2013.01 - EP US); **B01J 23/34** (2013.01 - EP US); **B01J 23/40** (2013.01 - EP US); **B01J 35/33** (2024.01 - EP US); **B01J 35/393** (2024.01 - EP US); **B01J 35/40** (2024.01 - EP US); **B01J 35/613** (2024.01 - EP US); **B01J 37/0054** (2013.01 - EP US); **B22F 1/054** (2022.01 - EP KR US); **B22F 9/026** (2013.01 - EP US); **B22F 9/24** (2013.01 - EP US); **B82Y 30/00** (2013.01 - EP US); **C01B 13/18** (2013.01 - EP US); **C01B 17/20** (2013.01 - EP US); **C01G 23/003** (2013.01 - EP US); **C22C 29/00** (2013.01 - EP US); **C22C 32/0084** (2013.01 - EP US); **H01L 23/49883** (2013.01 - EP US); **H01M 4/8605** (2013.01 - EP US); **H01M 4/8642** (2013.01 - EP US); **H01M 4/88** (2013.01 - KR); **H01M 4/8803** (2013.01 - EP US); **H01M 4/8828** (2013.01 - EP US); **H01M 4/885** (2013.01 - EP US); **H01M 4/886** (2013.01 - EP US); **H01M 4/90** (2013.01 - EP US); **H01M 4/9083** (2013.01 - EP US); **H01M 4/926** (2013.01 - EP US); **H01M 4/96** (2013.01 - EP US); **B01J 23/00** (2013.01 - EP US); **B01J 31/06** (2013.01 - EP US); **B01J 35/51** (2024.01 - EP US); **B01J 37/343** (2013.01 - EP US); **B01J 2219/00112** (2013.01 - EP US); **B01J 2219/00155** (2013.01 - EP US); **B01J 2219/00159** (2013.01 - EP US); **B01J 2219/00162** (2013.01 - EP US); **B01J 2219/00166** (2013.01 - EP US); **B01J 2219/00171** (2013.01 - EP US); **B01J 2219/00186** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP US); **C01P 2004/32** (2013.01 - EP US); **C01P 2004/61** (2013.01 - EP US); **C01P 2006/22** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US); **H01M 4/383** (2013.01 - EP US); **H01M 4/9016** (2013.01 - EP US); **H01M 8/1004** (2013.01 - EP US); **H01M 12/06** (2013.01 - EP US); **H01M 12/08** (2013.01 - EP US); **H01M 2008/1095** (2013.01 - EP US); **H05K 1/095** (2013.01 - EP US); **Y02E 60/10** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP US); **Y10T 29/49115** (2015.01 - EP US)

C-Set (source: EP KR US)
EP
1. **H01L 2924/0002 + H01L 2924/00**
2. **B22F 2998/00 + B22F 1/065**
3. **B22F 2998/00 + B22F 1/18 + B22F 1/052 + B22F 1/065**
4. **B22F 2998/00 + B22F 1/052 + B22F 1/065 + B22F 1/18**
KR
1. **B22F 2998/00 + B22F 1/065**
2. **B22F 2998/00 + B22F 1/052 + B22F 1/065 + B22F 1/18**
3. **B22F 2998/00 + B22F 1/18 + B22F 1/052 + B22F 1/065**
US
1. **B22F 2998/00 + B22F 1/065**
2. **H01L 2924/0002 + H01L 2924/00**
3. **B22F 2998/00 + B22F 1/18 + B22F 1/052 + B22F 1/065**
4. **B22F 2998/00 + B22F 1/052 + B22F 1/065 + B22F 1/18**

Citation (examination)

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- TAKASHI OGIHARA ET AL, JOURNAL OF THE CERAMIC SOCIETY OF JAPAN, INT. ED, no. 10, 1993, pages 1128 - 1132, XP000416268

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AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 0170392 A1 20010927; AU 4772501 A 20011003; CA 2402552 A1 20010927; CA 2402552 C 20071002; EP 1268054 A1 20030102; EP 1268054 A4 20030709; EP 1268054 B1 20121205; JP 2003527735 A 20030916; JP 4097944 B2 20080611; KR 100797125 B1 20080122; KR 20020092996 A 20021212; US 2003049517 A1 20030313; US 2003054218 A1 20030320; US 2006247122 A1 20061102; US 6753108 B1 20040622; US 6991754 B2 20060131; US 7087341 B2 20060808; US 7722687 B2 20100525

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KR 20027012402 A 20020919; US 21299202 A 20020805; US 21314702 A 20020805; US 42419806 A 20060614; US 58971000 A 20000608